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EXAMINER

YANG, CLARA I

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,077

Applicant(s)

FLICK, KENNETH E.

Examiner

Clara Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03.05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 14, lines 13 - 30, change "vehicle control system 11'" to "vehicle control system 10'".

Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1 - 16, 18 - 29, and 46 - 56 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7, 8, 18, 19, 21, 22, 24, 25, 30 - 23 of U.S. Patent No. 6,140,938 in view of U.S. Patent No. 5,113,183 (Suman et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons:

- ◆ Claims 1 - 4, 5, 7 - 9, 15, 16, 18 - 21, 23, 29, 46 - 49, 50, 52, and 56 are unpatentable over claims 18, 24, 25, and 30 - 32 of U.S. Patent No. 6,140,938. The patent claims a vehicle control system comprising: (a) at least one uniquely coded remote transmitter (see Col. 11, line 48); (b) a receiver within the vehicle for receiving a signal from the at least uniquely coded remote transmitter (see Col. 11, lines 49 - 50); (c) a remote transmitter learning means for learning at least one uniquely coded remote transmitter (see Col. 11, lines 51 - 55); and (d) a remote transmitter verifying means for causing an indication of whether at least one new uniquely coded remote

transmitter has been learned by indicating a change in a unique code of learned remote transmitters (see Col. 11, lines 56 - 60). The remote transmitter learning means and the remote transmitter verifying means are interpreted to be a controller in light of Fig. 1. The patent further claims in Col. 12, lines 48 - 67, that the vehicle control system includes at least one vehicle security sensor, a plurality of vehicle door locks, and a vehicle engine starter that are all responsive to a learned remote transmitter; thus the controller is able to communicate with a plurality of vehicle devices. In addition, the patent claims that the remote transmitter verifying means of the controller comprises indicating means for generating an indication of whether at least one uniquely coded remote transmitter has been learned (see Col. 12, lines 16 - 20) and that the indicating means include vehicle indicators comprising at least one of a light, a visual display, a vibration transducer, a speech message generator, and an audible signal generator (see Col. 12, lines 21 - 26). The patent fails to expressly claim an instrument panel carrying a vehicle indicator. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vehicle control system of U.S. Patent No. 6,140,938 such that a vehicle indicator is located at an instrument panel because the instrument panel is an ideal location for providing indications of a change in a learned remote transmitter's unique code to a user. The patent also fails to expressly claim a controller communicating with the vehicle devices via a data bus.

In an analogous art, Suman teaches a vehicle door locking system, as shown in Fig. 1, comprising (a) remote transmitter 20 for transmitting a coded signal (see Col. 3, lines 20 - 31) and control module 30 at vehicle 10. As shown in Fig. 4, Suman's control module 30 includes: (b) receiver 72 within control module 30 for receiving signals from remote transmitter 20 (see Col. 3, lines 36 - 40); (c) data bus 80; (d) microcontroller 52 that is connected to receiver 72 and data bus 80 (see Fig. 4); and (e) a plurality of vehicle devices, including a chime or vehicle indicator, connected to microcontroller 52 via bus 80 (see Fig. 4). Per Suman, microcontroller 52 is able to: (1) communicate with the vehicle devices via data bus 80 (see Col. 6, lines 57 - 64); (2) learn remote transmitter 20's unique code (see Col. 5, lines 2 - 13 and Col. 11, lines 11 - 33); and (3) cause the vehicle chime to sound when a new code has been learned (see Col. 11, lines 33 - 38).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the vehicle control system of U.S. Patent No. 6,140,938 as taught by Suman because a data bus is a well known and effective means for connecting two or more wires/lines.

- ◆ Claims 6, 22, and 51 are unpatentable over claim 30 of U.S. Patent No. 6,140,938. The patent teaches that the vehicle control system includes an alarm controller that generates an alarm responsive to at least one vehicle sensor (see Col. 12, lines 51 - 55). The term "alarm indicators" is understood to be a siren and/or lights since Col. 6, lines 8 - 10, teaches that siren/lights 31 are used to generate an alarm.

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- ◆ Claims 10 - 12, 24 - 26, and 53 are unpatentable over claims 19, 21, and 22 of U.S. Patent No. 6,140,938. The patent claims that the vehicle control system can be switched to a learning mode (see Col. 11, lines 61 - 64) and that the remote transmitter verifying means causes an indication: (1) that the learning mode has been entered (see Col. 12, lines 3 - 7); (2) when the learning mode was last entered (see Col. 12, lines 8 - 12); and (3) for progressively indicating a passage of time since the last learning mode (see Col. 12, lines 13 - 16).
 - ◆ Claims 13, 27, and 54 are unpatentable over claim 60 of U.S. Patent No. 6,140,938. The patent claims in Col. 16, lines 1 - 5, a remote transmitter verifying means (or controller) that indicates whether a new uniquely coded remote transmitter has been learned by causing an indication of a number of learned remote transmitters.
 - ◆ Claims 14, 28, and 55 are unpatentable over claim 61 of U.S. Patent No. 6,140,938. The patent claims in Col. 16, lines 25 - 29, a remote transmitter verifying means (or controller) that indicates whether a new uniquely coded remote transmitter has been learned by causing an indication of a change in a number of learned remote transmitters.
4. Claims 30 - 45 and 57 - 67 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 26, 27, 31, 32, 34 - 40, and 64 - 68 of U.S. Patent No. 6,140,939. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons:
- ◆ Claims 30 - 33 and 57 - 60 are unpatentable over claims 26, 27, 40, and 64 of U.S. Patent No. 6,140,939. The patent claims a vehicle control system comprising: (a) a biometric characteristic sensor for sensing the biometric characteristic of a user (see Col. 14, lines 42 - 43 and Col. 18, line 13); (b) a controller connected to the biometric characteristic sensor for communicating with at least one vehicle device (see Col. 14, lines 44 - 46 and Col. 18, lines 14 - 16); and (c) a plurality of vehicle devices connected to the controller (see Col. 14, lines 57 - 59). The controller includes means for learning a unique biometric characteristic of an individual to permit control of a vehicle function (see Col. 14, lines 47 - 49 and Col. 18, lines 18 - 21) and for causing an indication of whether at least one new unique biometric characteristic has been learned (see Col. 14, lines 52 - 54 and Col. 18, lines 22 - 24). The patent also claims that the controller comprises vehicle indicators, such as a light, a visual display, a vibration transducer, a speech message generator, and an audible signal generator (see Col. 15, lines 42 - 47) for indicating that the learning mode has been entered. Though the patent omits claiming that the controller is connected to a vehicle data communications bus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vehicle control system of U.S. Patent No. 6,140,939 such that a data bus is used to connect the controller and vehicle

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devices because a data bus is a well known and effect means for connecting two or more wires/lines. The patent also fails to expressly claim an instrument panel carrying a vehicle indicator. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vehicle control system of U.S. Patent No. 6,140,939 such that a vehicle indicator is located at an instrument panel because the instrument panel is an ideal location for providing indications that a new biometric characteristic has been learned.

- ◆ Claims 34, 35, 61, and 62 are unpatentable over claims 1, 26, and 65 of U.S. Patent No. 6,140,939. The patent claims a vehicle control system comprising a vehicle sensor that communicates with a vehicle controller, which has a vehicle alarm indication for generating an alarm (see Col. 12, lines 42 - 45 and 48 - 57)
- ◆ Claims 36 - 38 and 63 are unpatentable over claims 27 and 65 of U.S. Patent No. 6,140,939. The patent claims a vehicle control system wherein the controller controls a plurality of vehicle devices, such as those for vehicle starting and vehicle access (see Col. 14, lines 57 - 59 and Col. 18, lines 25 - 28).
- ◆ Claims 39 and 64 are unpatentable over claims 32, 34, and 66 of U.S. Patent No. 6,140,938. The patent claims that the controller is switchable to a learning mode (see Col. 15, lines 9 - 12) and causes an indication that the learning mode has been entered (see Col. 15, lines 17 - 21 and Col. 18, lines 29 - 30).
- ◆ Claims 40 and 41 are unpatentable over claims 35 and 36 respectively of U.S. Patent No. 6,140,939 because the claims are substantially similar.
- ◆ Claims 42 - 44 and 65 - 67 are unpatentable over claims 37 - 39, 67, and 68 of U.S. Patent No. 6,140,939 because the claims are substantially similar.
- ◆ Claim 45 is unpatentable over claim 31 of U.S. Patent No. 6,140,939 because the claims are substantially similar.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 39 - 41, 42 - 44, 58 - 60, and 64 - 67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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7. Claims 39 and 64 recite the limitation "the at least one uniquely coded transmitter" in lines 3 and 4 of the claims. There is insufficient antecedent basis for this limitation in the claim. The examiner interprets the limitation to be "a unique biometric characteristic of a new individual".

8. Claims 42, 43, 65, and 66 recite the limitation "learned uniquely coded transmitters" at the end of the claims. There is insufficient antecedent basis for this limitation in the claim. The examiner interprets the limitation to be "number of learned individuals".

9. Claims 44 and 67 recite the limitation "a code of at least one uniquely coded transmitter" at the end of the claims. There is insufficient antecedent basis for this limitation in the claim. The examiner interprets the limitation to be "the identity of learned individuals".

10. Claim 58 recites the limitation "at least one new uniquely coded transmitter" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim. The examiner interprets the limitation to be "a unique biometric characteristic of a new individual".

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1 - 9, 16, 18 - 23 and 46 - 52 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,113,182 (Suman et al.).

Referring to Claims 1 - 3, 16, 18, 19, and 46 - 48, Suman's vehicle door locking system, as shown in Fig. 1, comprises (a) remote transmitter 20 for transmitting a coded signal (see Col. 3,

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lines 20 – 31) and control module 30 at vehicle 10. As shown in Fig. 4, Suman's control module 30 includes: (b) receiver 72 within control module 30 for receiving signals from remote transmitter 20 (see Col. 3, lines 36 – 40); (c) data bus 80; (d) microcontroller 52 that is connected to receiver 72 and data bus 80 (see Fig. 4); and (e) a plurality of vehicle devices, including a chime or vehicle indicator, connected to microcontroller 52 via bus 80 (see Fig. 4). Per Suman, microcontroller 52 is able to: (1) communicate with the vehicle devices via data bus 80 (see Col. 6, lines 57 – 64); (2) learn remote transmitter 20's unique code (see Col. 5, lines 2 – 13 and Col. 11, lines 11 – 33); and (3) cause the vehicle chime to sound when a new code has been learned (see Col. 11, lines 33 – 38).

Regarding Claims 4, 20, and 49, Suman imparts that control module 30 may be mounted within an overhead console, which includes lamps (i.e., "vehicle indicators"), a vehicle compass, and other vehicle accessories (see Col. 3, lines 26 – 36). Because the overhead console includes a compass, the overhead console is understood to be an instrument panel.

Regarding Claims 5, 21, and 50, Suman's control module 30, as shown in Fig. 4, includes switches 60 – 61 or vehicle sensors that communicate with microcontroller 52 via parallel input data bus 53 (see Col. 6, lines 6 – 30).

Regarding Claims 6, 22, and 51, Suman's control module 30, as shown in Fig. 4, further comprises a vehicle alarm indicator that is activated by microcontroller 52 via data bus 80 when the vehicle anti-theft alarm has been set (see Col. 12, lines 20 – 23). Microcontroller 52 is also able to communicate with the vehicle horn and headlights and actuate them in the event a tamper signal has been received (see Col. 7, lines 5 – 23).

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Regarding Claims 7 - 9, 23, and 52, as shown in Fig. 4, Suman's microcontroller 52 is able to communicate with vehicle 10's starter and door locks via data bus 80 (see Col. 9, lines 3 - 13 and Col. 11, lines 39 - 51), which are controllable vehicle devices.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 10 - 15, 24 - 29, and 53 - 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,113,182 (Suman et al.) as applied to claims 1, 18, and 46 above, and further in view of U.S. 5,986,571 (Flick).

Regarding Claims 10 - 15, 24 - 29, and 53 - 56, Suman teaches that control module 30 has switch 36 that switches microcontroller 52 into a learning mode (see Col. 5, lines 2 - 13) but is silent on microcontroller 52 causing the following: (1) an indication that the learning mode has been entered; (2) an indication of when the last learning mode was entered; (3) an indication for progressively indicating a passage of time since the learning mode was last entered; (4) an indication of the number of learned remote transmitters; (5) an indication of a change in the number of learned remote transmitters; and (6) an indication of a change in a code of at least one of the learned remote transmitters.

In an analogous art, Flick teaches a building security system 10, as shown in Fig. 3, comprising (a) remote transmitters 50 and (b) building security controller 11. Per Flick, building security controller 11 includes a transmitter and receiver 13 for receiving signals from remote

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transmitter 50 (see Col. 3, lines 46 - 50) and a central processing unit (CPU) 12 for communicating with building sensor 20, alarm indicators 23, and system indicators 24 (see Figs. 1 and 3; Col. 3, lines 61 - 67; and Col. 4, lines 39 - 47). Flick's CPU 12 has a remote transmitter learning means 47 for learning a remote transmitter 50 that is to switch building security controller 11 between armed and disarmed modes (see Col. 4, lines 39 - 42). Flick discloses that system indicators 24 include lights, audible tone generators, etc. (see Col. 4, lines 8 - 10 and Col. 5, lines 21 - 34) and are actuated by CPU 12 for: (1) indicating that building security controller 11 has entered a learning mode (see Col. 4, lines 63 - 56); (2) indicating when the learning mode was last entered (see Col. 5, lines 1 - 3); (3) progressively indicating a passage of time since the learning mode was last entered (see Col. 5, lines 3 - 5); (4) indicating the number of learned remote transmitters (see Col. 5, lines 21 - 26 and 48 - 51); (5) indicating a change in the number of learned remote transmitters (see Col. 5, lines 51 - 53); and (6) indicating a change in a code of at least one of the learned remote transmitters (see Col. 5, lines 51 - 53).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suman's control module 30 as taught by Flick because having a control module 30 that is able to cause the various indications listed above (1) ensures a user that only the coded remote transmitters under his/her control may operate the vehicle security system, (2) prevents unauthorized remote transmitters from being surreptitiously learned by control module 30, and (3) enables a user to determine how recently the learn mode or transmitter change has occurred so that the user is able to correlate the change with someone's ability to access the system (see Col. 5, lines 26 - 30 and Col. 7, lines 43 - 47).

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15. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,113,182 (Suman et al.) as applied to claim 1 above, and further in view of U.S. Patent No. 5,736,935 (Lambropoulos).

Suman's vehicle door locking system includes a remote transmitter 20, not a transponder.

In an analogous art, Lambropoulos teaches a keyless vehicle entry and engine starting system that includes a portable transceiver A (see Fig. 1) and a vehicle transceiver C (see Fig. 2). As shown in Fig. 2, vehicle transceiver C includes a radio frequency (RF) detector 70 for receiving transceiver A's coded signal (see Col. 6, lines 2 - 8) and microcomputer 80 for controlling vehicle devices, such as door lock motor 112, door unlock motor 114, and ignition start 115. Lambropoulos discloses that vehicle transceiver C has an RF oscillator 120 for transmitting an interrogation signal to transceiver A (see Col. 6, lines 65 - 67 and Col. 7, lines 1 - 1 - 5) and is able to learn the security codes of one or more transceivers A (see Col. 6, lines 21 - 47). Transceiver A responds to the interrogation signal by transmitting a reply to vehicle transceiver C (see Col. 5, lines 21 - 42); hence, transceiver A is a transponder.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suman's security system as taught by Lambropoulos because a vehicle security system that includes a transponder that transmits its code when it receives an interrogation signal containing the proper interrogation code eliminates the need for manual operation of switches on a remote transmitter while maintaining a high level of security.

16. Claims 30 - 34, 36 - 39, 42 - 45, 57 - 61, and 63 - 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,271,745 (Anzai et al.).

Referring to Claims 30, 45, and 57, Anzai teaches a vehicle control system, as shown in Fig.1, comprising: (a) fingerprint sensors 11, 13, 15, and 39 for sensing a user's fingerprint (see Fig. 9, steps S89 and S91; and Col. 4, lines 24 - 28 and 44 - 45); (b) control unit 1 connected to sensors 11, 13, 15, and 39 (see Col. 4, lines 30 - 39); and (c) a plurality of vehicle devices, such as dashboard unit 3, ignition switch status unit 5, lock unit 7, and engine immobilizer unit 9. Per Anzai, control unit 1 performs the following steps: (1) communicates with the components of dashboard unit 3, ignition switch status unit 5, lock unit 7, and engine immobilizer unit 9 (see Figs. 5 - 9; Col. 4, lines 40 - 45 and 56 - 67; Col. 5, lines 1 - 19; and Col. 6, lines 25 - 60); (2) enrolls or learns fingerprints of various users (see Col. 6, lines 64 - 66); and (3) indicates that a new fingerprint has been learned by asking for confirmation of the enrollee via display unit 41 (see Col. 7, lines 58 - 67). Though Anzai's vehicle control system lacks a data bus that connects control unit 1 to the vehicle devices, the Examiner takes Official Notice that using a data bus to connect a controller to a plurality of devices is well known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Anzai's vehicle control system such that control unit 1 is connected to the vehicle devices via a data bus because a data bus is a well known and effective electrical connection that allows two or more wires/lines to be connected together.

Regarding Claims 31, 32, 58, and 59, Anzai's dashboard unit 3 has a display unit 41 (i.e., "vehicle indicator") that is used by control unit 1 to indicate that a fingerprint has been scanned and recorded by prompting the owner for confirmation of an enrollee (see Col. 7, lines 62 - 67).

Regarding Claims 33 and 60, Anzai's display unit 41 is within dashboard unit 3, which is an instrument panel (see Fig.3 and Col. 4, lines 40 - 50).

Regarding Claims 34 and 61, Anzai discloses that control unit 1 communicates with ignition switch status unit 5, which includes sensors 49, 51, and 53 (see Col. 4, lines 56 - 67), and lock unit 7, which includes sensor 67 (see Col. 5, lines 1 - 2 and 9 - 10).

Regarding Claims 36 - 38 and 63, as explained above in Claims 1 and 57, Anzai teaches that control unit 1 communicates with controllable vehicle devices, such as lock unit 7 and engine immobilizer unit 9.

Regarding Claims 39 and 64, Anzai teaches that a user is able to place control unit 1 in various modes via switches 43a and 43b on dashboard unit 3 (see Col. 6, lines 61 - 67 and Col. 7, lines 1 - 4). When a user selects the menu mode, control unit 1 enables the user to enroll additional users, view or deleted enrollees, and set up the system (see Fig. 4). When a user selects the enroll mode (see Fig. 8, steps S55 and S57), the display changes and prompts the user for the category of authorization (i.e., owner, driver, and non-drive) (see Col. 7, lines 42 - 45); hence the display of authorization categories is an indication that the learning mode has been entered.

Regarding Claims 42 - 44 and 65 - 67, per Anzai, when the view/delete mode is selected via dashboard unit 3, display unit 41 provides a list of the initials and category of authorization for each enrollee (see Col. 8, lines 1 - 7); as shown at step S101 in Fig. 10, the record for the eighth enrollee of the twelve enrollees is displayed. Consequently, each time an enrollee is added or deleted, the list indicates the change in the number of learned individuals. It is understood that an enrollee's initials (i.e., identity) can be changed by deleting the existing record and providing new initials during the enrollment process; thus, the list also indicates a change in the identity of at least one learned individual.

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17. Claims 35 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,271,745 (Anzai et al.) as applied to claims 30 and 57 above, and further in view of U.S. Patent No. 5,113,183 (Suman et al.).

Regarding Claims 35 and 62, Anzai's vehicle control system lacks a vehicle alarm indicator.

In an analogous art, Suman's vehicle door locking system, as shown in Fig. 1, comprises control module 30 at vehicle 10. As shown in Fig. 4, Suman's control module 30 includes: (a) data bus 80; (b) microcontroller 52 that is connected to data bus 80 (see Fig. 4); and (c) a plurality of vehicle devices, including a chime or vehicle indicator, connected to microcontroller 52 via bus 80 (see Fig. 4). Per Suman, microcontroller 52 is able to: (1) communicate with the vehicle devices via data bus 80 (see Col. 6, lines 57 - 64); (2) learn remote transmitter 20's unique code (see Col. 5, lines 2 - 13 and Col. 11, lines 11 - 33); and (3) cause the vehicle chime to sound when a new code has been learned (see Col. 11, lines 33 - 38). Suman's control module 30, as shown in Fig. 4, further comprises a vehicle alarm indicator that is activated by microcontroller 52 via data bus 80 when the vehicle anti-theft alarm has been set (see Col. 12, lines 20 - 23). Microcontroller 52 is also able to communicate with the vehicle horn and headlights and actuate them in the event a tamper signal has been received (see Col. 7, lines 5 - 23).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Anzai's vehicle control system as taught by Suman because a vehicle alarm indicator thwarts theft by actuating the vehicle horn and headlights when unauthorized access is detected, thereby enhancing vehicle security.

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18. Claims 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,271,745 (Anzai et al.) as applied to claim 39 above, and further in view of U.S. 5,986,571 (Flick).

Regarding Claims 40 and 41, Anzai is silent on control unit 1 causing the following: (1) an indication of when the last learning mode was entered; and (2) an indication for progressively indicating a passage of time since the learning mode was last entered.

In an analogous art, Flick teaches a building security system 10, as shown in Fig. 3, comprising (a) remote transmitters 50 and (b) building security controller 11. Per Flick, building security controller 11 includes a transmitter and receiver 13 for receiving signals from remote transmitter 50 (see Col. 3, lines 46 - 50) and a central processing unit (CPU) 12 for communicating with building sensor 20, alarm indicators 23, and system indicators 24 (see Figs. 1 and 3; Col. 3, lines 61 - 67; and Col. 4, lines 39 - 47). Flick's CPU 12 has a remote transmitter learning means 47 for learning a remote transmitter 50 that is to switch building security controller 11 between armed and disarmed modes (see Col. 4, lines 39 - 42). Flick discloses that system indicators 24 include lights, audible tone generators, etc. (see Col. 4, lines 8 - 10 and Col. 5, lines 21 - 34) and are actuated by CPU 12 for: (1) indicating when the learning mode was last entered (see Col. 5, lines 1 - 3); and (2) progressively indicating a passage of time since the learning mode was last entered (see Col. 5, lines 3 - 5).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Anzai's control unit 1 as taught by Flick because having a control module 30 that is able to cause the various indications listed above (1) ensures a user that only the coded remote transmitters under his/her control may operate the vehicle security system, (2) prevents unauthorized remote transmitters from being surreptitiously learned by

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control module 30, and (3) enables a user to determine how recently the learn mode or transmitter change has occurred so that the user is able to correlate the change with someone's ability to access the system (see Col. 5, lines 26 - 30 and Col. 7, lines 43 - 47).

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- ◆ U.S. Patent No. 4,881,148 (Lambropoulos et al.): Lambropoulos teaches a vehicle control system comprising a remote transmitter and a vehicle control unit, wherein the vehicle control unit is able to learn a plurality of remote transmitter codes.
- ◆ U.S. Patent No. 5,635,900 (Hasegawa et al.): Hasegawa teaches a vehicle security system that comprises a plurality of transponders and a vehicle control unit. The vehicle control unit is able to learn the code of each transponder.
- ◆ U.S. Patent No. 5,864,297 (Sollestre et al.): Sollestre teaches a programmable remote keyless entry system comprising a remote key fob and a vehicle control unit, wherein the vehicle control unit actuates a sound transducer to indicate via a long chime that the learn mode has been entered and to indicate via a short chime that a code has been successfully learned.
- ◆ U.S. Patent No. 5,867,802 (Borza): Borza teaches a vehicle security system that includes a biometric sensor and a vehicle control unit that is switchable between a normal mode and a learn mode and is able to indicate that the learn mode has been entered.
- ◆ U.S. Patent No. 6,100,811 (Hsu et al.): Hsu teaches a vehicle security system that comprises a biometric sensor and a vehicle control unit that controls the engine, the vehicle alarm system, and door locks and is able to learn the biometric characteristics of a plurality of users.




Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (703) 305-4086. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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13 April 2004


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